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THE WHITE HOUSE
WASHINGTON

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CABINET AFFAIRS STAFFING MEMORANDUM

DDI- 648282

DATE: 8-6-82 NUMBER: 077420CA DUE BY:

SUBJECT: CCEA - August 10, 1982

8:45 a.m. in the Roosevelt Room.

	ACTION	FYI		ACTION	FYI
ALL CABINET MEMBERS	<input type="checkbox"/>	<input type="checkbox"/>	Baker	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Vice President	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Deaver	<input type="checkbox"/>	<input type="checkbox"/>
State	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Clark	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Treasury	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Darman (For WH Staffing)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Defense	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Harper	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Attorney General	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Jenkins	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Interior	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Wheeler	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Agriculture	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Kudlow	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Commerce	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Labor	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
HHS	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
HUD	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Transportation	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Energy	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Education	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Counsellor	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
OMB	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CIA	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
UN	<input type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
USTR	<input checked="" type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CEA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CCCT/Gunn	<input type="checkbox"/>	<input type="checkbox"/>
CEQ	<input type="checkbox"/>	<input type="checkbox"/>	CCEA/Porter	<input checked="" type="checkbox"/>	<input type="checkbox"/>
OSTP	<input type="checkbox"/>	<input type="checkbox"/>	CCFA/Boggs	<input type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	CCNRE/Boggs	<input type="checkbox"/>	<input type="checkbox"/>

REMARKS: The Cabinet Council on Economic Affairs will meet Tuesday, August 10 in the Roosevelt Room (8:45 a.m.)

The agenda and papers on the US Domestic Private Investment/CM287 are attached. Papers on the Financial Market Developments/CM111 are forthcoming.

RETURN TO:

☐ Craig L. Fuller
Assistant to the President
for Cabinet Affairs
456-2823

☒ Becky Norton Dunlop
Director, Office of
Cabinet Affairs
456-2800

THE WHITE HOUSE
WASHINGTON

CABINET COUNCIL ON ECONOMIC AFFAIRS

August 10, 1982

8:45 a.m.

Roosevelt Room

AGENDA

1. U.S. Domestic Private Investment (CM#287)
2. Financial Market Developments (CM#111)



UNITED STATES DEPARTMENT OF COMMERCE
The Under Secretary for Economic Affairs
Washington, D.C. 20230

CM#287

Waiver on File

August 6, 1982

MEMORANDUM FOR Cabinet Council on Economic Affairs

FROM: Robert G. Dederick
Under Secretary for Economic Affairs *RGD*

SUBJECT: Investment Papers

Attached are papers on Inventories, Capital Spending, and Residential Investment for discussion at the August 10, CCEA meeting.

INVENTORY INVESTMENT RECENT DEVELOPMENTS AND PROSPECTS

INTRODUCTION

Recent movements in aggregate GNP have been heavily influenced by shifts in inventory investment. Real business inventories piled up at a large \$16.5 billion annual rate in the third quarter of 1981 when sales weakened. Accumulation then fell to only a \$4.8 billion rate in the fourth quarter, while outright liquidation--at a record \$15.4 billion pace--occurred in the first quarter of 1982. Thus, the inventory sector was a major contributor to the steep declines in real GNP during both of these periods. By contrast, in the second quarter of this year, a slower rate of inventory liquidation, \$6.9 billion at an annual rate, more than accounted for the 1.7 percent rate of gain in real GNP.

Even though stocks were generally viewed as moderate in the middle of 1981, the inventory adjustment already has exceeded the total liquidation in the 1980 downturn. What's more, the ratio of real nonfarm business inventories to final business sales was below the average of the past five years in both the first and second quarters. Thus, if the 1981-82 recession-recovery cycle were typical, one would expect further inventory liquidation in the current quarter to give way to inventory restocking no later than this autumn. Importantly, though, the current cycle is somewhat atypical.

With interest rates still high, a considerably less robust than average recovery in final sales is in prospect. Inventory liquidation, therefore, may continue somewhat longer than is usually the case, and initial inventory restocking may be relatively subdued. In addition to stubbornly high interest rates, the poor state of corporate liquidity and prospects for only moderate price increases provide powerful incentives for a lean inventory profile.

In past upturns, the end of inventory liquidation plus renewed inventory accumulation contributed 1-1/2 to 3 percentage points to real economic growth in the first year of recovery. While the addition to economic growth from the end of liquidation will be above average in this episode because the drawdown has been so deep, we expect a less rapid return to vigorous restocking. Therefore, the contribution of inventory investment to growth in the first year of recovery should be on the low end of the normal range.

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The inventory correction is pretty well along in the trade sector. By May, constant dollar stock-sales ratios for retailers and for merchant wholesalers had fallen from their January peaks to the average levels of the past five years. Imbalances remained, however, in the nonfood merchant wholesale and retail nondurable sectors. The bulk of the remaining inventory liquidation, therefore, probably will be focused in the latter two areas, as well as in manufacturing. Stock-sales ratios in basic industries, such as primary and fabricated metals, machinery, paper, chemicals, and rubber and plastics, remain quite high--both by past standards and relative to expected near-term shipments.

The attached paper outlines the characteristic pattern of inventory cycles and examines recent developments and prospects. An inventory cycle consists of a number of distinct phases, usually including the following: (1) involuntary inventory accumulation, (2) "free-fall," (3) intense inventory liquidation, (4) "turnaround," and (5) inventory rebuilding. The economy entered phase 3 in late 1981, and currently appears to be struggling into phase 4.

FIVE PHASES OF AN INVENTORY CYCLE

Phase 1: Unexpected sales declines result in an involuntary accumulation of inventories. In 1981, high and volatile interest rates aborted the recovery from the 1980 recession, depressing sales of credit-sensitive products, such as housing, autos, and farm equipment. Constant-dollar manufacturing and trade sales peaked in February 1981 and edged down through midyear.

Phase 2: The free-fall phase of recession results from cutbacks in production in response to sales declines in an attempt to reduce excess inventories. In 1981, the free-fall stage occurred between August and November. Most economic forecasts as late as June 1981 projected a rosy fourth quarter followed by a prosperous 1982. By late summer, the failure of interest rates to recede as forecast and the dawning realization that the fourth quarter would be flat at best spurred deep production cutbacks.

Phase 3: The intensive inventory liquidation phase begins when production is reduced below still falling sales. The length of this phase depends upon how excessive stocks were in Phase 1 and how promptly sales begin to recover.

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The current recession entered phase 3 in late 1981. In real terms, manufacturing and trade inventories declined by 2.2 percent between the end of November and the end of May. The slowing in the rate of inventory accumulation in the fourth quarter accounted for over one-half of the 5.3 percent annual rate of decline in real GNP. In the first quarter of 1982, the swing from inventory accumulation to a record pace of inventory liquidation more than accounted for the 5.1 percent rate of decline in real GNP. In the second quarter, the lessened pace of inventory drawdown more than accounted for the 1.7 percent rate of rise in real GNP.

Phase 4: At some point, sales turn upward, leading to phase 4 of the inventory cycle. There are indications that a hesitant entry into this phase began during the second quarter. Despite continued weakness in wages and salaries, real disposable personal income rose at a 3 percent annual rate, following a 1.9 percent rate of decline in the first quarter. Real business sales rose modestly in February and March, and quite strongly in May, after a steady downward trek between February 1981 and January of this year. Nominal sales figures indicate, however, that renewed weakness occurred in June. Continued high interest rates pose a threat to strong, sustained sales growth, both by directly holding down purchases of credit-sensitive items and by eroding confidence in prospective economic conditions.

Phase 5: Typically, inventory liquidation ends and stock rebuilding begins during the first twelve months of recovery. Once sales regain pre-recession levels and appear likely to continue growing, businesses usually undertake to rebuild stocks. But continued high interest rates and the back-to-back recessions of 1980 and 1981-82 may well have caused businesses to turn cautious. Once recovery gets underway, there may be some unwillingness to end inventory liquidation promptly, let alone to begin rebuilding at a typical rate. Thus, the contribution of inventory investment to growth could be on the low side until the economy is embarked on a clearly sustainable expansion.

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THE PATTERN OF BUSINESS SALES

During the current contraction, sales declines have traced a typical recession pattern. The table below compares percent changes in real manufacturing and trade sales during this recession with declines in earlier downturns.

As usual, durable goods sales have borne the brunt of the setback. The drop in housing activity has pulled down sales of furniture and appliances. Except when incentive programs have been in effect, new car deliveries have been weak since 1979. As a group, manufacturers and merchant wholesalers of durable goods have suffered a fall in sales more severe than during the 1980 recession.

Sales of nondurable goods have experienced smaller drops than sales of durable goods, as is usually the case. In manufacturing, the large decline in petroleum and coal shipments reflects conservation efforts as well as the effects of the recession. But in retail trade, the erosion of nondurable goods sales has been moderate, limited by lower inflation and tax cuts.

Total manufacturing and trade sales, adjusted for inflation, appear to have risen in three of the first six months of 1982, following nearly a year of decline. Hopes for a strong performance in the second half of this year rest heavily on the second installment of personal tax cuts, approximately \$25 billion at an annual rate, which took effect in July. As spending responds to this stimulus, retailers will be under pressure to replenish inventories--thus spreading the gain to wholesalers and, eventually, to manufacturers of consumer goods. Because of the low utilization of existing plant and equipment, the second round thrust to makers of capital goods probably will be somewhat more delayed than usual.

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REAL MANUFACTURING AND TRADE SALES

Peak to Trough Percent Changes during recession of:

	<u>1974-75</u>	<u>1980</u>	<u>1981-82*</u>
Manufacturing and Trade	-11.2	-7.3	-7.6
Manufacturing	-14.8	-8.6	-11.5
Durable goods	-18.5	-12.5	-15.4
Primary metals	-32.8	-25.9	-29.2
Fabricated metals	-26.0	-17.6	-17.0
Nonelectrical machinery	-15.7	-7.0	-13.5
Electrical machinery	-22.2	-9.0	-9.1
Transportation equipment	-26.5	-19.8	-25.6
Other durables	-13.9	-15.5	-11.3
Nondurable goods	-11.1	-5.2	-6.9
Food	-8.9	-2.8	-7.1
Paper	-21.4	-6.9	-10.3
Chemicals	-19.6	-11.1	-6.7
Petroleum and coal	-7.7	-15.4	-13.6
Rubber and plastics	-25.0	-18.2	-21.1
Other nondurables	-11.0	-2.1	-14.1
Merchant wholesalers	-15.2	-5.7	-7.0
Durable goods	-21.7	-9.4	-13.4
Nondurable goods	-10.6	-2.9	-15.1
Retail trade	-7.3	-7.1	-4.5
Durable goods	-17.5	-14.8	-12.3
Auto dealers	-24.4	-19.4	-14.0
Other durables	-8.6	-9.3	-8.1
Nondurable goods	-4.1	-2.9	-1.6
Food stores	-6.0	-3.1	-3.0
Other nondurables	-7.0	-4.7	-1.9

* Based on data through May, 1982

NOTE: Because of data revisions, the 1974-75 changes are not strictly comparable with the later changes. In addition, Manufacturing and Merchant Wholesale changes for 1980 and 1981-82 will be revised in the near future.

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A CLOSER LOOK AT INVENTORIES

Just as with sales, inventory trends have differed among specific sectors, with durable goods areas showing the greatest volatility.

Change in Real Nonfarm Business Inventories
(Billions of 1972 dollars, SAAR)

	1981				1982	
	1Q	2Q	3Q	4Q	1Q	2QE
Nonfarm	2.0	10.2	13.6	1.6	-15.6	-6.6
Durable manufacturers	2.3	1.8	6.5	-3.1	-6.5	-2.4
Merchant wholesalers	-2.1	2.1	1.0	4.8	-3.4	-0.4
Retail auto dealers	-1.6	5.7	1.3	-1.0	-1.9	0.3
Nondurable retailers	1.2	1.6	3.5	1.0	0.2	-1.5
Other	2.2	-1.0	2.3	-0.1	-4.0	-2.6

Durable Manufacturing: Inventories in many durable goods industries reached a peak in late 1981, and then trended downward through May (the latest available figure). The notable exception was stocks of primary metals industries, which did not begin to decline until spring. Inventories in nonelectrical machinery and transportation equipment industries, however, backed up after earlier declines and were actually slightly higher in May than in January.

INVENTORY-SALES RATIOS

	1977-81	1975	1980	1981	1982	
	Average	Peak	Peak	Jul	Jan	May
DURABLE MANUFACTURING	2.34	2.71	2.70	2.46	2.81	2.66
Primary Metals	2.77	3.17	3.40	2.88	3.47	4.01
Fabricated Metals	2.46	2.99	2.81	2.48	2.92	2.68
Nonelec. Machinery	2.88	3.65	3.11	2.90	3.10	3.14
Electrical Machinery	2.40	2.83	2.60	2.52	2.69	2.54
Transport. Equipment	1.81	2.09	2.41	2.07	2.63	2.13
Other	2.08	2.32	2.32	2.11	2.32	2.22

The stock-sales ratio for total durable manufacturing peaked in January. By May, the ratio was back below the October level, albeit still well above its longer-term average. The inventory-sales ratio for primary metals industries, however, has continued to climb, reaching a new high in May. Shipments of primary metals have fallen in eight out of the past ten

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months, exacerbating the problem of bringing iron, steel, copper, and aluminum stocks at the producer level into line. With demand in metal-using industries projected to recover slowly, and with little chance of significantly higher metals prices over the next six months, metal industries' customers have been working down stocks.

While the stock-sales ratio for electrical machinery peaked in October, shipments have only picked up modestly so far this year after a 10 percent drop between last June and December. The stock-sales ratio for nonelectrical machinery peaked in April. Shipments, however, were weak this spring and probably will fall considerably as business capital spending catches up with earlier weakness in the overall economy.

Total durable goods manufacturing industries recorded shipments increases in three of the first six months of this year, after a plunge between last June and January. Even so, the April-May average was still below the fourth quarter shipments level. Some of the recent strength reflected a moderate rebound in domestic new car production from the extremely low January trough. Much of the remaining gain in shipments has come at the expense of drawing down unfilled orders. With new orders for durable goods still falling through June, there is little hope of a turnaround this summer in hard goods output. Automakers are scaling down second half assembly plans, because of reduced optimism for a revival in new car sales.

Merchant Wholesale: Merchant wholesale inventories piled up in the fourth quarter of 1981. Wholesalers typically get caught with unwanted goods when their customers cancel orders while suppliers are still shipping to them. The high value of the dollar also may have prompted additional purchases of foreign-made goods in anticipation of sales gains that, in fact, failed to materialize.

Wholesalers reduced their inventories significantly during the first quarter of this year, but have made little further progress since then. Some of the slowness in unloading stocks may stem from optimism about consumer spending prospects. If the consumer-led recovery is slow in arriving or is not as strong as many expect, merchant wholesalers may become more aggressive in their liquidation of inventories during the second half of the year.

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INVENTORY-SALES RATIOS

	1977-81	1975	1980	1981	1982	
	Average	Peak	Peak	Jul	Jan	May
MERCHANT WHOLESALE	1.39	1.40	1.47	1.39	1.49	1.39
Durable	2.02	2.12	2.21	2.02	2.18	2.31
Nondurable	.86	.85	.88	.83	.90	.76

Retail Auto Dealers: The well-publicized figures on business failures include a greater than proportionate number of auto dealerships. With financing costs for their stock running about 2 percentage points above the prime rate, surviving dealers are understandably reluctant to hold more than minimal inventories. Over the past two and a half years, inventories have tended to fall when special factory-authorized sales promotions have lifted sales, then to rise when the incentives have been removed and sales have slumped.

By March of this year, stocks had been drawn down almost to a 17-year low by deep production cuts in the autumn and winter and by sales incentives in the first quarter. During the second quarter, sales on balance were lower than in the winter. An increase in domestic new car production, thus, caused inventories to rise modestly between March and June.

The June weakness of new car sales appears to have carried over into July. Accordingly, automakers recently have announced slower start-up production schedules for 1983 models. While dealers would like more sales promotions in order to move 1982 models this summer--the recent low sales rate has pushed up the ratio of inventories to sales--automakers would like to wean the car buying public from the special programs.

Retail Nonauto Durable Goods: The recovery of nonauto hard good sales from the 1980 recession topped out early in 1981. Through January of this year, sales slumped by about 10 percent. So far in 1982, sales have remained slack. Widespread price discounting for sporting goods, jewelry, furniture, and appliances has helped to stave off continued declines. Inventories, which had climbed strongly between April and December of 1981, were run down in the first quarter of this year and then held steady between March and May. The stock-sales ratio, while down from the January peak, remained elevated in May by past standards. In large part, the sales weakness is attributable to high interest rates. Home furnishing sales have been hurt by the poor state of housing markets. In addition, consumers remain reluctant, by comparison with the late 1970's, to borrow--because of the higher interest rates, as well as uncertainty

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about being able to meet monthly payments in an environment of widespread unemployment. With inventories still heavy, retailers of nonauto durable goods are unlikely to add to inventories unless sales improve markedly.

Retail Nonfood Nondurable Goods: Through much of the summer of 1981, retailers were optimistic about sales following the oncoming October 1 tax cut. Inventories rose markedly between spring and early fall, although some of the third quarter increase was an involuntary reflection of weakening sales. When hopes for a strong fourth quarter turned into fears of recession, optimism turned to caution.

Stocks were reduced between October and February, and since then they have risen only modestly. Since the stock-sales ratio remains high, retailers probably will await results of the important back to school period before altering the current focus on maintaining tight inventories.

INVENTORY-SALES RATIOS

	1977-81	1975	1980	1981	1982	
	<u>Average</u>	<u>Peak</u>	<u>Peak</u>	<u>Jul</u>	<u>Jan</u>	<u>May</u>
TOTAL RETAIL	1.41	1.52	1.45	1.43	1.48	1.41
Auto dealers	1.72	2.27	2.02	1.82	1.95	1.64
Other durable	2.20	2.56	2.24	2.11	2.26	2.20
Food	.72	.78	.74	.75	.77	.77
Other nondurable	1.33	1.38	1.36	1.35	1.39	1.36

CAPITAL SPENDING
RECENT DEVELOPMENTS AND NEAR-TERM PROSPECTS

Summary and Conclusions

Real outlays for nonresidential fixed investment barely recovered from the decline associated with the 1980 recession. Thus far during the current recession, from the fourth quarter of 1981 to the second quarter of 1982, real capital spending is estimated to have dropped by 3.4 percent.

Further weakness in real capital spending is in prospect. Key determinants of investment are unfavorable (reduced cash flow, a very low operating rate in manufacturing, and high real long-term bond rates), and the forward-looking indicators of capital spending are declining (commercial and industrial building contracts and nondefense capital goods orders).

Firms have cut back their capital spending plans for 1982 since last autumn, according to surveys by McGraw-Hill and the Bureau of Economic Analysis.

Recovery in capital spending seems unlikely until early 1983. The stimulative effects of the Tax Act of 1981 on new investment should help to bolster outlays next year.

Total Business Fixed Investment

Real nonresidential fixed investment posted a net decline of 6.1 percent between 3Q 1979 and 2Q 1980, and then recovered by 6.1 percent by 4Q 1981. Real outlays for producers' durable equipment (PDE) peaked in 3Q 1981, and as of 2Q 1982, were down 5.7 percent. Real outlays for nonresidential structures recovered fully from the 1980 recession by mid-1981, and continued to edge up through 2Q 1982.

Nonresidential Structures

Commercial and industrial building contracts (in terms of floor space) posted six consecutive quarterly declines from 4Q 1980 to 2Q 1982, plunging by 30 percent.

Real outlays for nonresidential structures have held up so far because of strong growth in office building, up 31 percent in real terms from 2Q 1981 to 2Q 1982. McGraw-Hill reports, however, that square footage contracted for office building is declining now, and predicts that space started in 1982 will be 27 percent below last year's level. (Office building accounted

for almost one-fifth of nonresidential structures in 2Q 1982.) Real outlays for oil and gas drilling (part of nonresidential structures) were rising rapidly through the fourth quarter, but then began to decline sharply during the first half of 1982.

Producers' Durable Equipment

New orders for nondefense capital goods, in constant dollars, dropped by 15 percent from 2Q 1981 to 2Q 1982. Orders were still declining at a rapid pace in June.

The recent decline in real outlays for producers' durable equipment has been most pronounced in farm tractors and agricultural machinery, construction equipment, mining and oilfield equipment, and aircraft. On the strong side, real outlays for office and store equipment rose by 27 percent from 2Q 1981 to 1Q 1982, before dropping 7 percent in 2Q 1982.

Factors Influencing Capital Expenditures

Real retained corporate cash flow (depreciation plus undistributed corporate profits, deflated by the price deflator for nonresidential fixed investment) never fully recovered from the severe decline during the 1980 recession. From 1Q 1981 to 1Q 1982, real cash flow plunged by 14 percent. The decline in internal sources of corporate funds would have been even larger had it not been for the accelerated cost recovery provisions of the Tax Act of 1981. Those investment incentives (accelerated depreciation, leasing, and other minor provisions) reduced corporate tax liabilities by about \$8 billion as of 1Q 1982. This sum should double by 1Q 1983, and continue to grow thereafter.

The depressed state of internal sources of funds is accompanied by an extremely poor climate for external sources of funds, particularly in the long-term bond markets. Citibank's weighted average of yields on new high-grade corporate bond offerings hit a record high of 16.33 percent in the third quarter of 1981, and as of July 1982, was down only to 15.83 percent. While further declines are now occurring, real bond yields are still in a historically high range.

Corporate bond placements, as a result, are off sharply so far this year. A large pent-up demand for long-term corporate bond financing overhangs the market, as firms wait for lower interest rates. To round out the poor backdrop for capital spending, downward trends have occurred in net business formation and capacity utilization in manufacturing.

Net business formation, on a quarterly average basis, barely edged up after the 1980 recession and then began declining sharply once again during 1981. Given the high rate of business failures so far in 1982, net business formation probably has continued to fall. (Net business formation is classified by the Commerce Department's Bureau of Economic Analysis (BEA) as one of the leading indicators of capital investment.)

In a similar way, capacity utilization in manufacturing barely recovered from the steep drop associated with the 1980 recession. The current recession has brought the operating rate down to 69.8 percent, close to the postwar low established in 1975. In June, the operating rate for primary processing industries dropped to a new postwar nadir of 65.5 percent. Advanced processing industries operated at 72.1 percent of capacity, about 2 1/2 points above the postwar low.

Capital Spending Plans - The BEA Survey

The Bureau of Economic Analysis reports that firms have reduced their spending plans. In real terms, outlays are now expected to drop by 2.4 percent this year.

<u>Year 1981 to Year 1982</u>	<u>Survey Released In*</u>	
	<u>June 1982</u>	<u>Jan. 1982</u>
<u>Total Nonfarm Business</u>		
Nominal increase	2.2%	7.4%
Real change	-2.4	-0.5
<u>Industry Detail: real change</u>		
Manufacturing	-3.5	0.9
Durable goods	-3.5	1.6
Nondurable goods	-3.6	0
Nonmanufacturing	-1.7	-1.4
Mining	-9.1	-3.6
Transportation	-1.7	3.5
Public utilities	-3.5	-3.7
Trade and services	0.4	-0.6
Communication and other	-2.6	-1.9

* Release of January 1982 based on survey conducted November-December, 1981. Release of June 1982 based on survey conducted April-May 1982.

The downward-revision in capital spending plans has been concentrated in the manufacturing, mining, and transportation sectors.

In January, BEA assumed capital goods prices would rise by 7.9 percent from 1981 to 1982. In June, BEA assumed a price rise of only 4.8 percent. If this latter figure is inappropriately low, or if firms reduce their spending in line with the reduced inflation rate, the decline in real expenditures will be larger than BEA projects.

For the first quarter, BEA reported an 18 percent drop in starts of manufacturers' new investment projects, and cancellations of several large projects by utilities. These cuts are consistent with the beginning of a decline in capital spending during the second quarter.

Industry Spending Intentions

Before BEA's P&E survey results were released on June 10, analysts at the Commerce Department's Bureau of Industrial Economics (BIE) already had reported that many industries were scaling back their 1982 capital spending plans--either from last year's level or from the 1982 level that had been planned at the beginning of this year. BEA's June survey corroborated these findings. Almost every major manufacturing industry (chemicals excepted) has reduced the level of outlays planned for 1982. The sharpest cutbacks, in percent terms, have been in textiles, aircraft production, motor vehicles, food manufacturing, and airlines.

Since BEA does not provide constant dollar capital spending plans for most industries for the year 1982, current dollar percent changes are shown below.

1982 Capital Spending Plans

	<u>June 1982 Survey:</u> <u>Percent change</u> <u>from 1981 to 1982,</u> <u>current dollars</u>	<u>Current dollar level:</u> <u>Change from survey of</u> <u>Jan. 1982 to survey</u> <u>of June 1982</u>
<u>Manufacturing</u>		
Steel industry	15.5%	-7%
Nonferrous metals	-11.1	-1
Fabricated metals	-2.4	-7
Electrical machinery	14.1	-7
Nonelectrical machinery	5.1	-1
Motor vehicles	-13.6	-19
Aircraft	-3.9	-20
Stone, clay & glass	-9.9	-12
Other durables	-5.8	-12
Food & beverages	-5.8	-17
Textiles	-15.4	-22
Paper	-12.1	-12
Chemicals	4.7	0
Petroleum	5.0	-7
Rubber	6.8	-8
Other nondurables	9.2	-4
<u>Nonmanufacturing</u>		
Mining	2.3	-8
Rail transport	9.9	2
Airlines	0.8	-13
Other transport	1.8	-7
Electric utilities	5.2	0
Gas & other utilities	-4.6	-5
Trade & services	2.9	-3
Communication & other	5.1	-2

Industry data listed above are classified according to the primary economic activity of the reporting firm. The increase in capital spending planned by the steel industry for 1982, for example, reflects some investment in non-steel activities. The right-hand column of the table above shows that the steel industry has scaled back by 7 percent the level of outlays planned for 1982, compared with the January survey.

BIE industry analysts expect that capacity for raw steel output will decline in 1982. Older facilities, such as the U.S. Steel flat rolled equipment plant at Birmingham, Alabama, face permanent closure, while new investment will be for modernization or mandated pollution control with little impact on capacity.

BIE reports that a number of other industries plan to allocate large amounts of their capital spending for modernization of existing facilities rather than for expansion of capacity. (The Tax Act of 1981 increases the tax credit for rehabilitating older buildings.) In addition, analysts in BIE say that investment plans in some industries have been "put on hold," pending a clear indication from EPA and OSHA of future air pollution standards.

Other Survey Evidence

The McGraw-Hill survey, which covers firms representing about one-third of total capital spending, also points to a decline in outlays this year.

<u>Year 1981 to Year 1982</u>	<u>Survey of</u>	
	<u>Spring 1982</u>	<u>Fall 1981</u>
Nominal increase	3.9%	9.6%
Real change	-4.5	0

On a seemingly more positive note, the Conference Board reports that new capital appropriations by the 1,000 largest manufacturers rose by 21 percent in the first quarter. Significantly, though, this gain was due entirely to a 74-percent jump in appropriations by petroleum companies, following substantial weakness in previous quarters. The petroleum industry's appropriations, which may not be spent for several years, are for refining and pipeline, the latter actually being part of transportation rather than manufacturing. Non-oil appropriations were down 1 percent. For the full year 1982, all manufacturing companies expect appropriations to be down 5 percent. A 10-percent rise was previously projected.

Outlook

The basic determinants of capital spending are poor at present (depressed cash flow, low operating rates, high real long-term interest rates, and prospects for a below-par economic recovery during the near term). Leading indicators of capital spending (plant awards and new orders for equipment) are falling. Therefore, further declines in real nonresidential fixed investment are likely during the third and fourth quarters of 1982, bringing the drop for calendar year 1982 to about 3 percent. From the fourth quarter of 1981 to the fourth quarter of 1982, the estimated cutback is about 7 percent.

Assuming that long-term interest rates are kept in check, real capital spending should trend upward during 1983 in response to strengthening markets and improving cash flow. Unless rates decline significantly, though, the rebound is likely to run below the postwar norm (an average 9.4 percent over the first four quarters of capital spending recovery, or 7.2 percent excluding the 23 percent burst in capital spending associated with the Korean War boom of 1950).

July 1982 Revisions In Capital Spending

Real nonresidential fixed investment increased at an annual rate of 6.5 percent over the past 5 years, instead of 5.3 percent as previously estimated. The revised data raised the level of real capital spending in 1981 by 5.9 percent, and the capital spending share of real GNP from 10.8 percent to 11.4 percent. These facts, however, do not lessen the need for incentives to spur business investment. In recent years, an increasing share of capital spending has been for replacement of obsolete business equipment and nonresidential structures. Net business fixed investment, as a share of real GNP, declined to a very low 3.0 percent in 1981; it averaged 4.2 percent in the late 1960s, and 3.4 percent in the early 1970s.

Residential Investment

Summary and Conclusions

Residential investment stabilized during the first half of 1982, following an extended period of sharp declines. An upturn is likely to begin later this year. Because mortgage interest rates are still high, however, homebuilding will not play its usual strong role in leading the economy out of recession.

The number of persons in the prime home-buying age category has increased sharply in the past few years. This phenomenon, together with the slowdown in housing construction since the late 1970's, probably will stimulate an expansion in residential construction as interest rates fall and employment and disposable personal income begin to strengthen. However, because at the beginning of the 1980's the housing stock was larger relative to the population size and in better repair than a decade earlier, less new construction may be needed than is generally believed.

The tax cuts enacted in 1981 provide greater stimulus for investment in business plant and equipment than in housing. In addition, as a result of deregulation of the country's financial institutions and basic changes in monetary policy management, mortgage interest rates may well remain higher, relative to inflation and to other interest rates than was generally the case in the 1970's. These policy changes will restrain residential construction somewhat in coming years.

Recent Developments in Residential Construction

From 1978 to the first half of 1982, the rate of residential fixed investment (in constant dollars) fell by almost 40 percent, while housing starts dropped by more than 50 percent. The low point for starts was an annual rate of 854,000 units last October. Because housing starts have stabilized, residential investment also is leveling off. A slow upturn in starts and construction activity probably will be evident in the second half of this year. For 1982 as a whole, private housing starts will be lower than in 1981, when they totaled 1.08 million units. According to recent forecasts by the Department of Commerce, 1.2 to 1.3 million housing units will be started in 1983.

The downturn in residential construction over the past several years has been especially severe in single-family housing. From 1978 to the first half of 1982, the rate of starts of single-family structures fell by about 60 percent, while starts of multi-family housing units declined by about 40 percent. However, unlike single-family housing, construction of multi-family housing was lower in the late 1970's than earlier in the decade.

Residential Investment, Housing Starts, Prices,
and Interest Rates, 1978-82

<u>Item</u>	<u>1978</u>	<u>1981</u>	<u>1981</u>		<u>1982</u>	
			<u>III</u>	<u>IV</u>	<u>I</u>	<u>II</u>
Gross Private Investment in Residential Structures, \$ Billions 1972 <u>1/</u>	62.4	44.9	42.9	39.9	38.9	39.2
Private Housing Starts, 1,000 Units <u>1/</u> :						
Structures with:						
1 Unit	1,433	705	644	537	594	601
2 to 4 Units	125	91	75	78	74	80
5 or More Units	462	288	242	251	253	274
Region:						
South	824	562	478	440	547	514
West	545	240	214	189	169	180
North Central	451	165	147	134	99	153
Northeast	200	117	122	103	105	109
Total	2,020	1,084	962	865	920	956
Percent Increase in Prices of New One-Family Houses from Year Earlier <u>2/</u>	14.3	7.9	8.3	8.8	6.6	5.4
Percent Increase in Fixed Weight Price Index for Residential Investment from Year Earlier	12.8	7.1	6.4	7.5	5.6	4.8
Average Commitment Interest Rates for Conventional Home Mortgages with 25-Year Terms and 75% Loan-to-Price Ratios, Percent	9.7	16.7	17.3	17.9	17.4	17.3

1/ Quarterly figures are seasonally adjusted annual rates. The quarterly housing start data are averages of monthly figures expressed at annual rates.

2/ Based on Census index for houses with a certain fixed set of characteristics; lot value is not covered by the index.

Sources: Bureau of Economic Analysis, Bureau of the Census, and Federal Home Loan Bank Board.

Residential Investment During Recent Economic Slowdowns

Quarter of Trough in Residential Fixed Investment	Residential Fixed Investment, Seasonally Adjusted Annual Rates, in \$ Billion 1972			
	Value In Trough Quarter \$ Billion	% Decline from Peak to Trough Quarter	Percent Increase from Trough to Same Quarter	
			1 Year Later	2 Years Later
1967, First Quarter	32.3	29	30	41
1970, Second Quarter	38.4	16	37	65
1975, First Quarter	39.4	41	25	43
1982, First Quarter <u>1/</u>	38.9	39	--	--

1/ For purposes of this table, it is assumed that the first quarter of 1982 was the trough of the current recession in residential investment.

Source: Bureau of Economics Analysis, Survey of Current Business.

Because outlays on housing additions and alterations remained strong in 1980 and only began to fall in 1981, they have been a stabilizing element in residential construction. Such activity accounted for about 25 percent of the total value of private residential construction put in place in the first half of 1982, compared with less than 18 percent in 1978. Single-family housing units remained the largest component of new residential construction in the first half of 1982, but they accounted for a much smaller share than in 1978 (51 percent of the value of private construction of residential buildings compared with 67 percent in the earlier year).

In the first half of 1982, housing starts were especially depressed in the North Central States (where the annual rate of starts was down more than 70 percent from the peak level in 1978) and in the Western States (where the downturn from 1978 was a little under 70 percent). Housing starts will not increase by very much in the North Central States until economic recovery occurs in the basic industries of that region. In the Western States, the housing boom of the late 1970's led to large price increases which, in turn, accentuated the recent downturn. Among the various regions, the South had the smallest drop in starts (about 35 percent from 1978 to the first half of 1982).

Because sales of new and used housing remained very depressed in the first half of 1982, little incentive exists for a sharp pick up in housing starts. From the second half of 1981 to the first half of 1982, the average rate of sales of new, one-family houses (based on seasonally adjusted data) declined by about 3 percent, while the sales rate for used, one-family houses fell by 8 percent. The rate of sales of new houses in the first half of 1982 was about 55 percent lower than in 1978, while the rate of sales of used houses was down about 50 percent.

Over the past 3 years, the reduction in homebuilding activity has resulted in a sharp decline in the number of new houses on the market for sale. This decline has not been sufficient, however, to prevent an increase in the stock/sales ratio of new houses. In recent months, the number of new houses available for sale has been sufficient to supply the market for 8 or 9 months at the prevailing rates of sale; from 1976 to 1978, about a 6-month supply was generally available.

U.S. Housing Stock

In the 1970's, the construction of new housing was approximately equal to the net increase in the housing stock. Those units lost from the stock because of demolition or other reasons were about offset by conversions of existing property (both residential and nonresidential) into additional housing units. In the 1980's, it is possible that relatively fewer units will be removed from the stock because the building boom of the 1970's resulted in a general improvement in the quality of the stock. In addition, the slow pace of new construction itself may contribute to a slowdown in removals from the stock.

The total stock of housing units increased by 28 percent from 1970 to 1980, compared with 18 percent from 1960 to 1970. The faster growth occurred despite a substantial slowdown in the rate of increase in the population during the 1970's. Thus, there was a sharp decrease in the average number of persons per housing unit. The median number of persons per owner-occupied housing unit was 3.1 in 1960 and 3.0 in 1970 but fell to 2.6 in 1980. In the case of renter-occupied units, the comparable figures were 2.6 in 1960, 2.3 in 1970, and 2.0 in 1980. The downturn in residential construction over the past few years would appear to indicate that the housing stock may not grow at nearly as fast a pace in the early 1980's as in the 1970's.

The stock of owner-occupied housing increased at a considerably faster rate than the stock of renter-occupied housing in the 1970's. In large part, this resulted from the combination of (1) low mortgage interest rates relative to the rate of

inflation and (2) tax savings available to homeowners, which grew in importance as marginal tax rates rose. In 1980, owner-occupied housing accounted for 65 percent of total occupied units. Over 85 percent of single-family detached units were owner-occupied.

U.S. Stock of Housing

<u>Category</u>	<u>Millions of Units in 1980</u>	<u>Percent Increase From</u>	
		<u>1960 to 1970</u>	<u>1970 to 1980</u>
All Units:	88.2	18	28
Year Round Units:	86.0	20	27
Occupied Units:	80.1		
Owner-Occupied	52.5	22	32
Renter-Occupied	27.6	16	17
1 Family, Detached	54.8	12	22
1 Family, Attached	3.4	-46	72
2 to 4 Families	10.8	19	20
5 to More Families	13.2	58	34
Mobile Homes or Trailers	3.8	170	82

Source: U.S. Department of Commerce and U.S. Department of Housing and Urban Development, Annual Housing Survey: 1980, Part A, General Housing Characteristics.

1/ Includes unoccupied units which are available for rent or sale, as well as those units which are not on the market because they are used as second homes, are held for settlement of an estate, or are unavailable for other reasons.

Mortgage Financing

Mortgage interest rates and the availability of mortgage credit are generally the principal determinants of year-to-year changes in residential construction, and the recent housing downturn is directly attributable to the sharp rise in mortgage rates. Average commitment interest rates for 25-year mortgages with 75 percent loan-to-price ratios increased from less than 9 percent in 1977 to a peak of over 18 percent in the fall of 1981. In the past few months, these rates have averaged about 17 percent, a level substantially higher than the underlying pace of inflation.

The increases in interest rates, together with rising house prices, have resulted in sharply higher monthly payments for purchases of homes. According to the U.S. League of Savings Associations, the median monthly mortgage payment for newly purchased houses rose from \$273 in 1977 to \$624 in 1981, an increase of almost 130 percent. During that same period, the median family income (in current dollars) rose by only 40 percent.

Because of the large rise in financing charges, many potential homebuyers have been priced out of the market. First-time buyers--persons without equity gains from past increases in home prices--accounted for only 13.5 percent of the buyers who obtained mortgages from savings and loan associations in 1981, compared with about 36 percent in 1977.

During the recent period of falling home sales, household liquidity has increased. This should be a favorable factor for sales in the future. Total mortgage debt and consumer installment credit for mobile homes outstanding at the end of the second quarter of 1982 amounted to 75 percent of the annual rate of disposable personal income in that quarter. By contrast, at the end of 1979 the value of mortgage and mobile home debt was equal to 82 percent of disposable income in that year.

Variable rate mortgages are increasing in popularity. If short-term interest rates remain substantially below long-term rates during the next year, mortgages tied to short-term rates may grow in importance and help to support an increase in residential construction.

Residential investment probably will not recover very much, however, until interest rates on long-term mortgages fall by several percentage points. Recent reductions in short-term interest rates are a favorable development, because investors now have more incentive to purchase long-term securities (including mortgages). Nevertheless, mortgage and other long-term interest rates may not decline much until it is clear that the public sector's demand for credit and the underlying inflation rate are under better control.

Savings and loan institutions, which have been the principal suppliers of mortgage financing to homebuyers over the past few decades, recently have been hurt by higher interest costs and declining market values for their mortgage holdings. As a result of these difficulties, S&Ls are now playing a much smaller role in the mortgage market than in the past. Mortgage pools (which include substantial amounts of pension money) and State and local governments (which have issued large numbers of tax-exempt mortgage revenue bonds), on the other hand, have increased their shares of the mortgage market. In coming years the S&Ls will be diversifying their assets to include larger

proportions of instruments other than mortgages, while some observers expect pension funds to invest more heavily in mortgages. Thus, the strength of the housing market may no longer be tied so closely to the level of deposits at S&Ls.

Sources of Funds to Households for Home Mortgages

<u>Source</u>	<u>1978</u>		<u>1961</u>	
	<u>Value of Funds Raised in \$ Billions</u>	<u>Percentage</u>	<u>Value of Funds Raised in \$ Billions</u>	<u>Percentage</u>
Savings and Loans	45.5	42	13.3	23
Mortgage Pools ^{1/}	12.4	11	12.6	22
Commercial Banks	24.1	22	12.2	21
Federal and Related Agencies	10.9	10	7.5	13
State and Local Governments	1.9	2	6.0	11
Finance Companies	1.1	1	.7	1
Credit Unions	.6	1	.3	1
Mutual Savings Banks	4.6	4	.1	-
Others	8.4	8	4.9	8
All Sources	109.4	100	57.7	100

^{1/} Pools of mortgages backing pass-through securities guaranteed by the Government National Mortgage Association, Federal Home Loan Mortgage Corporation, or Farmers Home Administration, some of which may have been purchased by the other institutions shown separately and reported among their nonmortgage assets.

Note: Home mortgage credit figures include a small amount of construction loans to other than households.

Source: Federal Reserve Bulletin (May 1982), p. 282.

Long-Term Growth in Housing Demand

Over the long term, the output of housing is determined mainly by demographic considerations, by the growth in the total purchasing power of the population, by the cost of housing, and by expectations concerning capital gains from investment in housing. Several of these forces were strongly favorable to residential construction in the 1970's, but their effect is likely to be more mixed in the 1980's.

As a consequence of the maturing of the baby-boom generation, the number of persons in the prime home-buying age category has increased sharply. From 1970 to 1980, when the total U.S. population rose by a little over 10 percent, the number of persons aged 25 to 34 years old increased by about 45 percent. Persons in this age category will increase by less than 15 percent from 1980 to 1990.

The growth in the numbers of older persons is also of substantial importance to the housing markets. From 1970 to 1980 the number of persons aged 65 years and older rose by over 25 percent, and in the 1980's this group will increase by about 15 percent. Because of increases in Social Security and other transfer payments, many of these persons have been able to maintain separate households, thereby expanding the total demand for housing.

In much of the past decade, the purchasing power available to buy houses rose at a rapid pace. From 1970 to 1978, per capita disposable personal income (in constant dollars) increased at an average rate of over 2 percent per year. From 1978 to 1981, however, the rate of increase fell to less than 1 percent.

In the 1970's, many homeowners were able to trade up to larger, and often newer houses because of the equity they gained as the prices of their old houses increased. These price increases also induced many families to raise their investment in housing because of their expectations of large capital gains. From 1970 to 1975, the median sales price for existing, one-family houses rose 53 percent, and over the next 5-year period it increased 76 percent. More recently, the rate of increase in house prices has slowed considerably. In addition, many home sellers recently have suffered capital losses (or reductions in their capital gains), because they have been forced to cut prices or to provide buyers with below-market-rate financing in order to sell their houses.

Recent reductions in the rate of growth of employment, and the resulting climb in unemployment, also have discouraged home purchases and construction. From 1978 to 1981, civilian employment rose at an annual rate of only 1.5 percent, compared with 2.5 percent from 1970 to 1978. The slowdown in the rate of growth in employment both reduced the rate of gain in the number of potential homebuyers and made persons who were fearful of losing their jobs reluctant to take on large amounts of new debt.

Because of reductions in federal subsidies, the continuation of relatively low rents, and slow growth in the incomes of the tenant population, construction of multi-family housing (much of which is rental property) is not likely to increase sharply

in the next few years. These negative factors probably will outweigh the beneficial effects on such construction of the investment tax cuts enacted last year. However, rental vacancy rates are lower now than in the 1974-1975 recession, and in coming years rents probably will rise at a faster rate than the general level of housing prices. Except for the past year, rents for a long time have increased at a slower rate than the general level of prices.

Rental Vacancy Rates, Relative Prices for Residential Rent,
and Relative Prices for Purchases of New Houses
1965-82

<u>Period</u>	Average Rental Vacancy Rates ^{1/} (Percent)	Relative Price for Rent ^{2/} (1965=100)	Relative Price for Purchases of New, Single-Family Houses, Excluding Lot Value ^{3/} (1965=100)
1965	8.9	100	100
1970	5.7	96	105
1975	6.5	88	115
1980	5.4	84	137
2nd Quarter 1981	5.0	83	134
2nd Quarter 1982	5.1	84	132

- ^{1/} Annual figures are averages of quarterly data. The data for 1975 and prior years have been revised to be consistent with the more recent series.
- ^{2/} Consumer price index for residential rent relative to the fixed-weighted price index for all personal consumption expenditures.
- ^{3/} Census price index for houses with a given set of physical characteristics relative to the fixed-weighted price index for personal consumption expenditures

Source: Bureau of Labor Statistics, Bureau of Economic Analysis, and Bureau of the Census

The recent slowdown in the rate of increase in construction costs should help to make new housing more affordable to the American public in coming years. From June 1981 to June 1982, the producer price index for all construction materials increased by only about 1.5 percent, compared with the over 10 percent annual increases from 1977 to 1979. Average hourly earnings of construction workers employed by residential building contractors, which rose by 7 to 8 percent annually in 1977-79, moved up by only 5.5 percent from June 1981 to June 1982.